DRAINAGE STRATEGY

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NURSERY ROAD,
BECKERMET,
CUMBRIA

DOC. REF: 25/02/1072 – DS
DATE: 18/04/2026

INTRODUCTION

This Drainage Strategy has been prepared in line with the requirements of condition 5 of outline planning permission 4/23/2034/0O1, dated 13/10/2023.

THE SITE

The site has a grid reference of: NGR NY 302217 E: 506672 N.

The site area is 0.14 ha.

The entire site is in Flood Zone 1.

PROPOSED DEVELOPMENT

The site benefits from an outline planning permission for 5 dwellings.

This Drainage Strategy has been carried out to meet the requirements of condition 5.

SURFACE WATER SYSTEM.

The surface water drainage system has been fully designed and submitted as part of a Discharge of Conditions application. The assessment has been undertaken in line with the national hierarchy for surface water disposal.

In summary:

Infiltration.

In-situ permeability testing was undertaken in August 2024 by way of two test holes. In test hole 1, there was in initial drop of 120mm in 90 minutes but then the water level remined the same with no further drop in level overnight. In test hole 2, there was in initial drop of 350mm in 90 minutes but then the water level remined the same with no further drop in level overnight.

Although the ground is not entirely impermeable the slow infiltration rates encountered concluded that disposal of surface water via percolation would not form an effective drainage solution for this site.

On this basis it is therefore considered that disposal of surface water using full infiltration-based SuDS is not viable for the proposed development and an attenuation-based strategy should be progressed.

Positive drainage – watercourse.
Black Beck flows in an east: west direction approximately 50 metres to the north of the site. The site is separated from Black Beck by the public highway and numerous dwellings on the north side of the public highway. There is no direct route to Bleck Beck without crossing private land therefore this option is non-viable and has been discounted.

Positive drainage – SW sewer.
The applicant is not aware of any dedicated surface water drains in the vicinity of the site.

Positive drainage – public combined sewer.
A surface water discharge to the public combined sewer is the last option in the national hierarchy for surface water disposal. Given options 1-3 have been assessed and discounted, the only remaining option is to discharge to the public sewer.

The submitted detailed design reflects the above strategy and includes attenuation storage crates and a controlled discharge rate. These details have been calculated by J.D. Pipes and are reflected on the Drainage Plan included with the submission. A Permit to Discharge will be obtained from United Utilities post-planning consent.

Building Regulations.
All new surface water drainage will meet the appropriate standards required by Approved Document H of the Building Regulations.

FOUL WATER SYSTEM.
It is proposed that the foul water from the site shall be connected under gravity to the existing 150mm diameter combined public sewer, which flows in an east: west direction in Nursery Road to the north of the site.

A Permit to Discharge will be obtained from United Utilities post-planning consent.

All new foul sewer drainage will meet the appropriate standards required by Approved Document H of the Building Regulations.

CONCLUSION.
An appropriate drainage strategy has been considered.

A detailed design solution has been submitted along with a Drainage Strategy as required by condition 5 of the outline planning permission.

Surface water disposal has been assessed in line with the national hierarchy. Option 1 (percolation), Option 2 (watercourse) and Option 3 (SW sewer) have been assessed and discounted. The surface water solution is therefore Option 4 (public sewer) with attenuation storage crates and a controlled discharge rate.

The new surface water and foul water systems will meet the appropriate standards required by Approved Document H of the Building Regulations.

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